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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,353

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Shoji Yuyama

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EXAMINER

NEWMAN, MICHAEL A

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

06/29/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/587,353	<b>Applicant(s)</b> YUYAMA ET AL.	
	<b>Examiner</b> MICHAEL A. NEWMAN	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments filed on March 15<sup>th</sup> and 23<sup>rd</sup>, 2010 have been entered.
2. In view of the amendment to the claims, the cancellation of claims 1 – 13 and the addition of claims 14 – 21 have been acknowledged.
3. In view of the cancellation of claims 1 – 13 the objections due to minor informalities of claims 6 and 10 – 13; the 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of claims 3, 4 and 9; the 35 U.S.C. 102 rejection of claim 1; and the 35 U.S.C. 103 rejection of claims 2 – 13, have been withdrawn.

### ***Specification***

4. The substitute specification and abstract filed March 15<sup>th</sup>, 2010 have been entered.

### ***Response to Arguments***

5. Applicant's arguments with respect to cancelled claims 1 – 13 have been considered but are moot in view of the new ground(s) of rejection applied to the new set of claims.

### ***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 14, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Pearson (U.S. Patent No. 5,292,029) and Rzasa et al. (U.S. Pg Pub No. 2003/0174326). Hereinafter referred to as Wootton, Pearson and Rzasa, respectively.

a. Regarding claim 14, Wootton teaches a tablet storage and take-out apparatus for storing plural kinds of tablets, filling a vial with a specified number and type of the tablets according to prescription data of a prescription, attaching a cap to the vial (**Wootton Page 1 line 3 to page 2 line 1 and Fig. 1A**), the apparatus comprising: a photographing unit for photographing an interior of the vial after filling the vial with the tablets and before attaching the cap on the vial (**Wootton Page 2 lines 1 – 4 and Fig. 1A element 18**); a prescription reading unit for reading a barcode of the prescription (**Wootton Page 4 lines 10 – 12**). Wootton teaches a pharmaceutical pill verification system in which the image of the tablets inside of the vial is subjected to automatic image processing to determine whether the extracted tablet features match features known to correspond to the drug listed in the prescription order. The goal is to relieve the pharmacist from having to manually inspect every filled vial. However, Wootton, in recognizing the limitations of any automatic verification system, teaches that when the system is unsure of the verification result, a pharmacist should separately review the container contents with the prescription listing to determine if it has been accurately filled (**Wootton page 15 lines 6 – 10**). Furthermore, Wootton is mainly concerned with performing verification at the point of filling and

does not explicitly teach any procedure at the point of dispensing. Wootton **fails to teach** transporting the vial to an empty one of a plurality of take-out ports for storage and taking out the vial, an indicating unit for indicating the take-out port storing the vial containing the tablets corresponding to the prescription read by the prescription reading unit; and a displaying unit for displaying on an operation display panel both the prescription data of the prescription corresponding to the prescription data of the prescription from the image photographed by the photographing unit and stored in the storing unit when the vial is taken out from the indicated take-out port. **Pertaining to the same field of endeavor, Pearson teaches a drug dispensing cart in which a plurality of prepared capsule containers are stored in a set of drawers or cubicles. Each capsule container is linked to a unique patient ID. When the operator enters the patient ID, the system turns on an indicator lamp on the drawer holding that patient's capsule container. The system also provides patient and drug information on a display for a dispensing nurse to compare with the medication (Pearson Col. 5 lines 14 – 53). Pearson further teaches that the system allows for medication containers to be filled in advanced, so that dispensing can be done more efficiently and with less errors (Pearson Col. 2 lines 17 – 24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the containers filled, imaged and capped by Wootton's system in a storage system having a plurality of storage locations, such as Pearson's cabinets, which upon**

entry of a unique identifier, such as Wootton's prescription barcode, would light up a holding cabinet locator light and would display, to a dispensing individual, prescription information, so as to improve efficiency and safety by enabling prescription containers to be filled ahead of time and stored, while allowing the dispensing individual to quickly find each container, and to easily verify its corresponding prescription data. As discussed, Pearson teaches displaying medication information on the display. The combination; however, **does not explicitly** teach storing an image photographed by the photographing unit and displaying an image of the tablet. **Pertaining to the same field of endeavor, Rzasa also teaches an automatic image-based pharmaceutical verification system. Rzasa teaches that although orders can be billed by a pharmacy technician, the Pharmacist performs a visual verification of the filled order since they are ultimately responsible for its accuracy. Rzasa teaches that the visual verification can be performed by having the pharmacist compare an image taken of the filled vials, with a database image of the same prescribed drug (Rzasa PPs0029 – 0030).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the image of the drug container captured by Wootton after the filling process, and to display the image on Pearson's display along with additional prescription and drug information, as taught by Rzasa, in order to enable a dispensing pharmacist to quickly perform a visual verification by simply viewing the image instead of having

**to open the filled container, thereby improving efficiency without sacrificing accuracy.**

b. Regarding claim 15, Wootton as modified by Pearson and Rzasa teaches all the limitations of the independent claim 14, as set forth in the 35 U.S.C. 103 rejection of claim 14 above. As discussed above, the combination teaches a displaying unit for displaying on the operation display panel the image of the tablet contained in the vial read out by the vial reading unit from the image photographed by the photographing unit and stored in the storing unit (Pearson's display used to display Wootton's captured container image, as taught by Rzasa). Wootton further teaches that a patient specific bar code label is applied onto the container at the point of filling (**Wootton page 1 line 22 – page 2 line 6**). However; Wootton **does not explicitly teach** a vial reading unit for reading a barcode of a label of the vial. **Pertaining to the same field of endeavor, Rzasa teaches an automatic pill verification system in which a bar code label affixed to a vial is read by a scanner. The bar code is used to retrieve information used to verify the identity of the vial's contents (Rzasa PP0043 – 0044). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Wootton's prescription reader to read the barcode label applied to the container any time after it has been filled, and to retrieve information that can be used to verify its contents, as taught by Rzasa, so as to allow a pharmacist or patient to verify its content independently.**

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c. Regarding claim 21, Wootton as modified by Pearson and Rzasa teaches all the limitations of the independent claim 14, as set forth in the 35 U.S.C. 103 rejection of claim 14 above. Wootton **does not specifically teach** a supporting member for supporting the photographing means on the body of the tablet storage and take-out apparatus, the supporting means being movable horizontally in front and rear and left and right directions and also movable vertically. **Pertaining to the same field of endeavor, Rzasa teaches a similar pharmacy validation system that uses an imager to obtain spectrograph images which are compared with known values. Specifically, Rzasa teaches that the imaging detector is mounted on an assembly which is capable of moving up and down in order to adjust the focal point and to move in a circular or ring-shaped pattern to ensure the entire contents of the vial is inspected (Rzasa PP0049 and 0050 and Fig. 6). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount Wootton's camera on a movable assembly, capable of moving up, down, left and right so as to properly focus on tablets at different heights and to cover the entire field of view, as taught by Rzasa.**

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Pearson (U.S. Patent No. 5,292,029) and Rzasa et al. (U.S. Pg Pub No. 2003/0174326) as applied to claim 14 above, and



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further in view of Eller et al. (U.S. Pg Pub No. 2008/0056556). Hereinafter referred to as Wootton, Pearson, Rzasa and Eller, respectively.

a. Regarding claim 16, Wootton in view of Pearson and Rzasa teach all the limitations of the independent claim 14, as set forth in the 35 U.S.C. 103 rejection of claim 14 above. As discussed above, the combination teaches a displaying unit for displaying on the operation display panel the image of the tablet contained in the vial read out by the vial reading unit from the image photographed by the photographing unit and stored in the storing unit (Pearson's display used to display Wootton's captured container image, as taught by Rzasa). The combination; however, **does not specifically teach** displaying a dispensed vial photo list screen including the image photographed by the photographing unit. **Pertaining to the same field of endeavor, Eller teaches a similar prescription bottle imaging system. Specifically, Eller teaches capturing an image of a filled vial before it is capped, as well as its label, and storing the images in a database record in association with a corresponding prescription on a storage device (Eller PP0025). Ellen teaches that the database records can be later accessed by a pharmacist or customer service representative. Retrieving each record causes the pill and label image to be displayed along with other prescription information on a compact user interface (Eller PP0026 and 0035 – See fig. 4). Eller teaches that by storing the filled prescription images and records together in a database, it can be accessed not only during fulfillment processing but**

**afterwards to respond to customer inquiries (Eller PP0035). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store, in a records database, the images and prescription information captured by Wootton during the filling process, and to provide, in a user interface such as Eller's, the necessary lists and fields to allow authorized users efficient access the database so that they can promptly respond to quality control needs or customer inquiries.**

9. Claims 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Pearson (U.S. Patent No. 5,292,029) and Rzasa et al. (U.S. Pg Pub No. 2003/0174326) as applied to claim 14 above, and further in view of Ogura et al. (U.S. Pg Pub No. 2001/0019100). Hereinafter referred to as Wootton, Pearson, Rzasa and Ogura, respectively.

a. Regarding claims 17 and 20, Wootton in view of Pearson and Rzasa teach all the limitations of the independent claim 14, as set forth in the 35 U.S.C. 103 rejection of claim 14 above. As discussed above, Wootton teaches the use of a camera to image the dispensed tablets for verification. Wootton; however, **does not teach** a focus control sensor for irradiating the surface of the filled tablets in the vial; and a focus control means for focus controlling the photographing means according to the detection value of the focus control sensor; wherein the photographing data of the photographing means after focus controlling by the focus control means is transferred to a control section of the tablet storage and

take-out apparatus, and wherein the focus control means adopts as the detection value the mean value of the multiple detection values of the focus control sensor.

**Pertaining to the same field of endeavor, Ogura teaches a focus detecting apparatus in which an autofocus operation is used to determine the optimal focus position of an imaging system. Specifically, Ogura teaches illuminating a target and repeatedly capturing an image of the target as the imaging lens is placed at different positions (Ogura PP0023). At each capture, a focus value is derived for each capture and the final focus value is determined by averaging the derived values. Finally, the lens is moved so as to match the resultant final focus value (Ogura PPs0027 – 0029).**

**Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to repeatedly capture images of the tablets using Wootton's camera at various camera lens positions, to determine the focus values and to average the values so as to determine the optimal focus setting, as taught by Ogura, in order to automatically determine the camera lens position resulting in the best focused image so as to improve the discrimination accuracy of the tablet identification system.**

b. Regarding claim 18, Wootton in view of Pearson, Rzasa and Ogura teach all the limitations of the dependent claim 17, as set forth in the 35 U.S.C. 103 rejection of claim 17 above. As discussed above, Wootton clearly teaches a camera as part of an imaging system for verification of filled prescriptions

**(Wootton Fig. 1A element 18).** Wootton further teaches using a programmed computer to obtain the camera image from a frame grabber and to further perform the image processing **(Wootton Page 6 lines 14 - 17)**. However, Wootton does not specifically teach an initializing means for initializing the photographing means in accordance with a command from the control section.

Official notice is taken that it is well known in the art that it is necessary to initialize a camera prior to capturing an image. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to initialize Wootton's camera using Wootton's computer in order to properly capture an image of the tablets being dispensed.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Pearson (U.S. Patent No. 5,292,029), Rzasa et al. (U.S. Pg Pub No. 2003/0174326) and Ogura et al. (U.S. Pg Pub No. 2001/0019100) as applied to claim 17 above, and further in view of Hamilton (U.S. Patent No. 6,738,723). Hereinafter referred to as Wootton, Pearson, Rzasa, Ogura and Hamilton, respectively.

a. Regarding claim 19, Wootton in view of Pearson, Rzasa and Ogura teach all the limitations of the dependent claim 17, as set forth in the 35 U.S.C. 103 rejection of claim 17 above. Wootton; however, **does not teach** a contrast control means for controlling the contrast of the photographing means in accordance with a command from the control section. **Pertaining to the same**

field of endeavor, Hamilton teaches an automatic pill counting system in which a digital camera is used to image the pills to be counted on a pharmacist tray and the image is analyzed to determine the number of pills. Specifically, Hamilton teaches that the tray surface on which the pills rest is illuminated by a liquid crystal display or the like. The color of the pills being counted is retrieved and input to a controller, based on this input, Hamilton teaches changing the color of the tray surface so that it provides a background which maximizes the contrast between the pills and surface (Hamilton Col. 7 lines 15 – 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the color of the supporting surface in Wootton, based on the known colors of the tablets stored by Wootton, as taught by Hamilton, so as to maximize the contrast between the tablets and the background resulting in improved shape detection and verification.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Bayliss, IV (U.S. Patent No. 6,386,367) teaches a see-through cap which allows a pharmacist to compare vial contents to an image printed on the label.
- b. Rosenblum (U.S. Patent No. 6,892,941) teaches a storage system for pre-filled prescriptions which can be retrieved when the patient arrives.

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- c. Wallace et al. (U.S. Patent No. 6,735,497) teaches a networked remote dispensing system.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. NEWMAN whose telephone number is (571) 270-3016. The examiner can normally be reached on Mon - Thurs from 9:30am to 6:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on (571) 272-7778. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/  
Supervisory Patent Examiner, Art Unit 2624

M.A.N.